Spire rather or quite long, acute,	
the apex slender	2.
1. Length over 20 mm., apparently	
related to L. emarginata	L. florissantica, n. sp.
Length 6 mm. or less, perhaps	
related to L. catascopium	L. scudderi Ckll.
2. Small species, about 8 mm. long,	
closely related to $L$ . $truncatula$ .	L. sieverti Ckll.
Larger species, over 18 mm. long.	3.
3. Smaller, aperture about half	
length of shell; apparently re-	
lated to L. palustris	L. shumardi Meek & Hayden.
Larger, aperture over half length	
of shell; apparently related	
to L. stagnalis	L. meekii Evans & Shumard.
L. shumardi and meekii are from t	he White R. beds; the others

L. shumardi and meekii are from the White R. beds; the others are from Florissant. Lymnæa was extraordinarily well developed in the Oligocene of Britain. As my memory serves me it seems that the minor modern groups were already well marked, and it may be considered probable that the types of L. stagnalis, palustris and truncatula, at least, were developed first in the old world, and reached America during the tertiary period. This is also suggested by the fact that the older (Laramie and Eocene) American species of Lymnæa do not suggest the modern circumpolar groups.

## FALSE SHELLS.

## BY C. W. JOHNSON.

Among the many specimens received from young collectors for determination there are occasionally non-molluscan forms so closely resembling shells, that they have been mistaken for mollusks; in fact, they have even deceived some of the more experienced conchologists.

In the more primitive crustacea, including the *Phyllopoda*, especially in the family *Estheriidæ* and the *Cladocera* and *Ostracoda*, the carapace is largely developed and forms a broad oval shell covering

entirely or most of the body, and divided into right and left halves, and hinged together on the dorsal line, thus giving the appearance of a bivalve mollusk.

Some of the insects also afford interesting examples. The larvæ of several species of caddice-flies, including the genus *Helicopsyche*, make spiral cases in which they live clinging to the rocks and stones in rapidly flowing streams. The little spiral cases composed of grains of sand, fastened together with silken threads resemble so closely the form of a *Trochus* or *Valvata* that Swainson (Treatise on Malacology, p. 353, f. 113, 1840), described one as the *Thelidomus braziliensis*, placing it in the family *Trochidae*, sub-family *Rotellinæ*. Dr. Isaac Lea (Trans. Amer. Phil. Soc., iv, 104, pl. xv, f. 33, 1830), described a similar larva case as *Valvata arenifera*.

In the Entomologist's Monthly Magazine, xxi, p. 1, 1884, Robert McLachlan describes and figures an "extraordinary heliciform lepidopterous larva case from East Africa." These closely resemble a high-spired Helix or Vivipara, both sinistral and dextral. The larva case of an allied species of Southern Europe, Psyche (Cochloplanes) helix is also figured, having the form of a small irregular helicoid shell. Larvæ of the genus Microdon of the dipterous family Syrphidæ have twice been described as land mollusks.

Numerous worm tubes of the family  $Serpulid\alpha$  formed by species of Ditrupa and Pomatoceras have frequently been described as Dentalium (see Pilsbry and Sharp, Manual Conch., xvii, 240).

## NOTES.

CAUGHT IN A LIVING TRAP.—In the window of a Salem, Mass., store may be seen a unique sight, that of a kingfisher held tightly in the grip of a mussel. The story is this:

This forenoon patrolman Michael J. Little while crossing Beverly bridge, saw the bird fluttering on the flats, and he asked a fisherman to investigate. The latter went to the spot and there found the bird drowned.

It had swooped down and poked its bill into the open shell of a mussel, which suddenly closed on the bill of the bird. There the the two remained, until the incoming tide drowned the bird. Hundreds have viewed the singular sight today.—(Boston Globe).